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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/593,577

06/14/2000

Vasco Vollmer

1221

7640

7590

03/19/2004

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EXAMINER

WILSON, ROBERT W

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 03/19/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/593,577

**Applicant(s)**

VOLLMER ET AL.

**Examiner**

Robert W Wilson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-17 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

**1.0** The application of Vasco Vollmer et al. for "METHOD OF CONTROLLING DATA FLOW FROM TERMINALS OF A CENTRALLY CONTROLLED COMMUNICATION SYSTEM" filed 6/14/2000 with a foreign priority date based upon GERMANY 199 27 544.0 dated 6/16/1999 was examined. Claims 1-18 are pending.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2.0** Claims 1, 3, 5-6, 14, & 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (U.S. Patent No.: 5,953,338)

Referring to **Claim 1**, Ma (U.S. Patent No.: 5,953,338) teaches: A method for controlling data flow of terminals in a centrally controlled communication system including a central station (ZE) for controlling the communication system (The ATM SWITCH 130A or central station controls inputs from the CUSTOMER NETWORK (110K) and CUSTOMER NETWORK (110J per Fig 1B or terminals or CLIENT per Fig 8 or terminal. 160 within the ATM SWITCH 130A per Fig 1B performs the control function); said method comprising allocating transmission resources to terminals (T1), T2, ...) requiring the transmission resources make a decision whether or not to use only reduced transmission resource capacity at least in transmission therefrom, independently of available transmission resource (160 per Fig 2 determines if the resources will be granted to the terminal based upon CALL CONTROL REQUEST per Fig 2. The CAC/MONITOR functions INSTRUCTS the BANDWIDTH MANAGER to dynamically adjust the size of the VPs according to the current load conditions per Fig 2. Fig 8 shows that the CAC checks the request against the traffic contract and if the request is within the specified QOS of the traffic contract and bandwidth is available then the request is approved. In other words the central station determined the maximum amount of resources that the CLIENT or CUSTOMER NETWORK could have. The CLIENT or CUSTOMER NETWORK starts sending traffic. The CLIENT or CUSTOMER NETWORK can make a decision to utilize less or more resources than is in specified in it contract. The CAC checks CLIENT's or CUSTOMER NETWORK's total

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traffic per Fig 8 if an overload occurs then the extra bandwidth block can be borrowed and released per Fig 9A or per col 7 line 16 col 8 line 67)

a) a terminal (T1,T2,...) requiring the transmission resources makes a decision whether or not to use only reduced transmission resource capacity at least in transmission therefrom, independently of available transmission resources (. Fig 8 shows that the CAC checks the request against the traffic contract and if the request is within the specified QOS and bandwidth is available then the request is approved. In other words the central station determined the maximum amount of resources that the CLIENT or CUSTOMER NETWORK could have. The CLIENT or CUSTOMER NETWORK starts sending traffic. The CLIENT or CUSTOMER NETWORK can make a decision to utilize less or more resources than is in specified in it contract. )

b) the decision regarding the reduced transmission resource capacity is transmitted from the terminal making the decision to the central station (ZE) so that the central station (ZE) allocates any remaining unused transmission resource capacity, as needed, to other terminals of the communication system (The CAC checks the CLIENT's or CUSTOMER NETWORK's total traffic contract agreement per Fig 8 if an overload occurs then extra bandwidth block can be borrowed and released per Fig 9A or per col 7 line 16 col 8 line 67. In other words the central station determines the maximum amount of resources that the CLIENT or CUSTOMER NETWORK can have. The CLIENT or CUSTOMER NETWORK starts sending traffic. The CLIENT or CUSTOMER NETWORK can make a decision to utilize less or more resources than is in specified in it contract. In the event one CLIENT or CUSTOMER NETWORK sends more traffic than it contract states then an overload occurs so bandwidth is borrowed and reassigned to resolve the overload)

#### **In Addition:**

Regarding **Claim 3**, further comprising assigning respective transmission resource capacities to said terminals (T1, T2,) based on filling states of corresponding transmission buffers of said terminals by means of the central station (The CAC in the ATM SWITCH or central station monitor's the CLIENT's or CUSTOMER NETWORK's total traffic and compares it to the traffic contract agreement per Fig 8 or Fig 9A. The CAC monitors for Peak Cell Rate or Average Cell rate per col 2 lines 11-23. It would be obvious to one of ordinary skill in the art that measurements of Peak Cell Rate or Average Cell rate are related to the fill rates of the transmission buffers.)

Regarding **Claim 5**, further comprising selecting a predetermined amount of reduction of the available transmission resource capacity independently of at least one of a data rate and a number of active links and in relation to a duration of a transmission (The applicant broadly claims independently of "data rate ....". The reference teaches that the amount of bandwidth borrowed is not calculated based upon the "data rate etc." of the loaner but the amount of bandwidth not used according to the loaner's contract per Fig 9A or 9B)

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Regarding **Claim 6**, wherein selecting of the predetermined amount of reduction takes place according to a medium access control channel access protocol (The applicant broadly claims "medium access control channel access protocol". It would be obvious to one of ordinary skill in the art that ATM is a 2 layer protocol or Medium Access Control protocol and that the CLIENT or customer network make requests to the CAC which can broadly be called communication over over an access control channel because the CLIENTS or customer networks are making access requests per Fig 8 and Fig 9A or 9B or col 7 line 15-col 8 line 67)

Regarding **Claim 14**, further comprising controlling transmission flow and reception flow based upon a decision to receive said reduced transmission resource capacity (The CAC checks the CLIENT's or CUSTOMER NETWORK's total traffic contract agreement per Fig 8 if an overload occurs then extra bandwidth block can be borrowed and released per Fig 9A or per col 7 line 16 col 8 line 67. In other words the central station determines the maximum amount of resources that the CLIENT or CUSTOMER NETWORK can have. The CLIENT or CUSTOMER NETWORK starts sending traffic. The CLIENT or CUSTOMER NETWORK can make a decision to utilize less or more resources than is in specified in it contract. In the event one CLIENT or CUSTOMER NETWORK sends more traffic than it contract states then an overload occurs so bandwidth is borrowed and reassigned to resolve the overload)

Regarding **Claim 16**, wherein said reduced transmission resource capacity and a reduction factor for said reduced transmission resource capacity are adjustable independently of said decision and transmission of said decision to said central station (The applicant broadly claims "reduced transmission resource capacity are adjustable independently of said decision" The amount of bandwidth borrowed is adjustable and based on an individual case basis or independent as shown in Fig 9A or 9B)

Regarding **Claim 17**, wherein said reduction factor and said reduced transmission resource capacity are adjustable during operation (The applicant broadly claims "adjustable during operation" The amount of bandwidth borrowed is adjustable and based on an individual case basis or adjustable during operation as shown in Fig 9A or 9B)

Ma does not expressly call for: central station but teaches ATM SWITCH with CALL CONTROL per Fig 1B or terminal but teaches CUSTOMER NETWORK per Fig 1B or CLIENT per Fig 8.

It would be obvious to one of ordinary skill in the art at the time of the invention that the ATM SWITCH with CALL CONTROL performs the same function as the central station and that the CUSTOMER NETWORK per Fig 1B or Client per Fig 8 performs the same function as the terminal

### ***Claim Rejections - 35 USC § 112***

**3.0** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 7-13 & 15 are rejected relative to 112/2<sup>nd</sup> paragraph because the metes and bound of these claims cannot be assessed.

Referring to **Claim 7**, Claim 7 is confusing and unclear. What is meant by “sum of a transmission time during at least one of up-link phase and direct-mode phase”?

Referring to **Claim 8**, Claim 8 is confusing and unclear. What is meant by wherein the reduction bit signals the central station ... set or unset”. What is meant by “set or unset”?

**In Addition:**

**Claims 9 & 10** are rejected because they depend upon **Claim 8**.

Referring to **Claim 11**, Claim 11 is confusing and unclear. What is meant by “set or unset state”?

Referring to **Claims 12 and 13**, Claim 12 is confusing and unclear. What is meant by “resource requirements are based on individual DLC links or according to a predetermined properties of said individual DLC links”?

Referring to **Claim 15**, Claim 15 is confusing and unclear. What is meant by “Xmission resource capacity relates only to an individual DLC link”?

***Allowable Subject Matter***

**4.0** The present invention is directed to a central terminal which controls flow of terminal in a centrally controlled communication system in which reception of flow is controlled according to an automatic repeat request protocol.

The closest prior art Ma (U.S. Patent No.; 5,953,338) discloses an ATM SWITCH or central terminal which controls the flow of data from CLIENTS or terminals but does not disclose useage of ARQ protocol in an ATM environment.

The closest prior art Ma (U.S. Patent No.: 5,953,338) does not disclose either singularly or in combination anticipate or render the following claim limitation obvious:

“c) controlling reception flow according to an automatic repeat request protocol” as claimed in **Claim 18**.

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### *Claim Objections*

**5.0**     **Claims 2 & 4** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The present invention is directed to a central terminal which controls flow of terminal in a centrally controlled communication system in which reception of flow is controlled according to an automatic repeat request protocol.

The closest prior art Ma (U.S. Patent No.; 5,953,338) discloses an ATM SWITCH or central terminal which controls the flow of data from CLIENTS or terminals but does not disclose useage of ARQ protocol in an ATM environment.

The closest prior art Ma (U.S. Patent No.: 5,953,338) does not disclose either singularly or in combination anticipate or render the following claim limitation obvious:

“further comprising inserting information...to the central station, wherein said resource requirement message informs the central station about a required or intended capacity...” as claimed in **Claim 2**.

“further comprising controlling reception flow according to an automatic repeat request protocol” as claimed in **Claim 4**.

### *Response to Amendment*

**6.0**     Applicant's arguments filed 3/2/04 have been fully considered but they are not persuasive.

The examiner respectively disagrees with the applicant's argument that the reference Ma (U.S. Patent No.: 5,953,338) fails to show or disclose the broad claim of “the decision regarding the reduced transmission resource capacity is transmitted from the terminal making the decision to the central station”. The examiner points out that the applicant has not specified a claim limitation that “a message is immediately sent from the terminal to the central station which specifies a decision to utilize less resources than were allocated wherein the central station can allocate unused capacity immediately to other clients and need not wait until the use of reduced capacity is monitored”. Ma teaches “the decision regarding the reduced transmission resource capacity is transmitted from the terminal making the decision to the central station” per Fig 8. The CLIENT per Fig 8 or terminal is transmitting to 160 within the ATM SWITCH 130A per Fig 1B or central station for approval of allocation of resources. The terminal makes a decision whether or not to utilize all of the resources allocated to the terminal and start to send a stream of

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data. The central station measures how much data is being sent by the terminal and thereby the central station knows the decision made by the terminal. The central station would have to know the decision made by the terminal station in order to reallocate resource to other terminal stations in order for the applicant's invention to work.

The examiner respectively disagrees with the applicant's argument that a modification has been made to the reference Ma invention in order to make it appear to be the same as the applicant's invention. The applicant has stated a broad claim and is now reading specification limitations into the claim. Ma inherently performs the same function as the broad claim of the applicant. Refer to the argument above for details.

The examiner respectively disagrees with the applicant's argument relative to claims 7, 11, 12, & 15 being indefinite. The examiner reviewed the pages and paragraphs cited by the applicant in the specification and still finds the limitations confusing.

Regarding Claim 7, Pg 10 does not further clarify "sum of a transmission time". What is the "sum of a transmission time"?

Regarding Claim 11, Bits in a word are either "set " or "not set". Saying something is in a "set" or "unset state" is meaningless; consequently, saying "set or unset state" is not a meaningful limitation.

Regarding Claim 12, "resource requirement occur on a basis of DLC Links" is not clarified in the last paragraph of PG 13. Are resources being allocated based on the demand requirements of a DLC link?

Regarding Claim 15, "Xmission resource capacity relates only to an individual DLC link" is confusing. Again are resource being allocated based upon the demand of an individual DLC link?

**6.0** Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

**7.0** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is (703) 305-4703. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Robert W Wilson  
Examiner  
Art Unit 2661

RWW  
March 8, 2004

  
